



Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a
data signal supplied via a data line among the plurality of data lines and the first transistor,
~~a plurality of pixels, each of the plurality of pixels having an electro-optical~~
~~element,~~ brightness of each of the electro-optical elements being set for each of a plurality of
sub-frames based on the data signal stored in the storage capacitor, which constitute one
frame of a period and each have a predetermined period, so that at least two levels of
brightness can be set for one frame; and

a sub-frame having a longest period among the plurality of sub-frames being
divided into at least two allocated sub-frames, and ~~at least a sub-frame among the plurality of~~
~~sub-frames having a period shorter than the allocated sub-frames being disposed between the~~
~~at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical
elements among the plurality of electro-optical elements, the series of electro-optical elements
being connected to at least two scanning lines, and substantially simultaneously.
2. (Currently Amended) The electro-optical device according to Claim 1,

a sum of the period of the at least two allocated sub-frames being set to 2^n
times as long as a sub-frame having a shortest period among n (n denotes a natural number)

sub-frames of the plurality of sub-frames, wherein n is a number of sub-frames excluding the at least two allocated sub-frames.

3. (Previously Presented) The electro-optical device according to Claim 2,
a sub-frame having a longest period among the plurality of sub-frames,
excluding the at least two allocated sub-frames, being half as long as the sub-frame having the
longest period among the plurality of sub-frames.

4. (Previously Presented) The electro-optical device according to Claim 1,
the two allocated sub-frames not being arranged consecutively in one frame of
a period.

5. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a
data signal supplied via a data line among the plurality of data lines and the first transistor,
~~a plurality of pixels, each of the plurality of pixels having an electro-optical~~
~~element, brightness of the electro-optical element being set for each of a plurality of sub-~~
~~frames based on the data signal stored in the storage capacitor, which constitute one frame of~~
a period and each have a predetermined period, so that at least two levels of brightness can be
set for one frame, and lengths of the plurality of sub-frames excluding a sub-frame having a
longest period being set to a period in binary weighted; ~~and~~
the sub-frame having the longest period among the plurality of sub-frames
being divided into at least two allocated sub-frames, ~~and at least a sub-frame among the~~

~~plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, and substantially simultaneously.

6. (Previously Presented) The electro-optical device according to Claim 5, the two allocated sub-frames not being arranged consecutively in one frame of a period.

7. (Currently Amended) An electro-optical device, comprising:
a plurality of scanning lines;
a plurality of data lines;
a plurality of electro-optical elements; and
a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor,
~~a plurality of pixels, each of the plurality of pixels having an electro-optical element,~~ brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period,
a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and ~~at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames, being disposed between the at least two allocated sub-frames, and~~
a sub-frame having a longest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames, excluding the at least two allocated sub-frames,

being set to 2^{n-1} times as long as a sub-frame having a shortest period among the n sub-frames, ~~and~~

brightness for the one frame can be set to 2^{n+1} levels, and

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

8. (Previously Presented) The electro-optical device according to Claim 7, the two allocated sub-frames not being arranged consecutively in one frame of a period.

9-10. (Canceled)

11. (Currently Amended) An electro-optical device, comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of electro-optical elements; and

a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor,

~~a plurality of pixels, each of the plurality of pixels having an electro-optical element,~~ brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, so that at least 2^n (n denotes a natural number) levels of brightness can be set for one frame,

a number of the plurality of sub-frames being $n + 1$ or more, ~~and~~

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, ~~and at least a sub-frame among the plurality of~~

~~sub-frames having a period shorter than the allocated sub-frames being disposed between the~~
~~at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical
elements among the plurality of electro-optical elements, the series of electro-optical elements
being connected to at least two scanning lines, end substantially simultaneously.

12. (Previously Presented) The electro-optical device according to Claim 11, a sub-frame having a longest period among the plurality of sub-frames, excluding the at least two allocated sub-frames, being 2^{n-1} times as long as a sub-frame having a shortest period.

13. (Currently Amended) An electro-optical device, which is capable of setting at least two levels of brightness for one frame, the electro-optical device comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of electro-optical elements; and

a plurality of pixel circuits to drive the plurality of electro-optical elements,
each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a
data signal supplied via a data line among the plurality of data lines and the first transistor,

electro-optical elements that are controlled to take either an ON state or an OFF state based on gray scale data for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, and at least two of the plurality of sub-frames being controlled to always concurrently take either the ON state or the OFF state;
and

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and ~~at least a sub-frame among the plurality of~~
~~sub-frames having a period shorter than the allocated sub-frames being disposed between the~~
~~at least two allocated sub-frames~~

the plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, and substantially simultaneously.

14. (Previously Presented) The electro-optical device according to Claim 13, the at least two allocated sub-frames having the same period of length.

15. (Previously Presented) The electro-optical device according to Claim 13, the at least two allocated sub-frames not being arranged consecutively in one frame of a period.

16-19. (Canceled)

20. (Currently Amended) The electro-optical device according to ~~Claim 19~~ Claim 1, the ~~current-driven element~~ electro-optical elements being an EL element.

21. (Original) The electro-optical device according to Claim 20, the EL element having a light-emitting layer formed of an organic material.

22. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor ~~a plurality of pixels, each of the plurality of pixels having an electro-optical element~~, the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames, and

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames~~

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, and substantially simultaneously.

23. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, lengths of the plurality of sub-frames excluding a sub-frame having a longest period being set in binary load,

dividing the sub-frame having the longest period among the plurality of sub-frames into at least two allocated sub-frames, and

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames~~

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines ending substantially simultaneously.

24. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor-a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of period and each have a predetermined period,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames;~~

setting a sub-frame having a longest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames, excluding the at least two allocated sub-frames, to 2^{n-1} times as long as a sub-frame having a shortest period of the n sub-frames, and

setting brightness for one frame to 2^{n+1} levels, and

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, end substantially simultaneously.

25. (Canceled)

26. (Currently Amended) A method of driving an electro-optical device that includes a plurality of scanning lines; a plurality of data lines; a plurality of electro-optical elements; and a plurality of pixel circuits to drive the plurality of electro-optical elements, each of the plurality of pixel circuits having a first transistor and a storage capacitor to store a data signal supplied via a data line among the plurality of data lines and the first transistor- ~~a plurality of pixels, each of the plurality of pixels having an electro-optical element,~~ the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames based on the data signal stored in the storage capacitor, which constitute one frame of a period and each have a predetermined period, so that at least 2^n (n denotes a natural number) levels of brightness are set for one frame with the number of the plurality of sub-frames being $n + 1$ or more,

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames,~~

always concurrently putting the at least two allocated sub-frames into a set state or a non-set state, ~~and~~

setting brightness for one frame to 2^n levels, and

setting a plurality of sub-frames, which are set for a series of electro-optical elements among the plurality of electro-optical elements, the series of electro-optical elements being connected to at least two scanning lines, and substantially simultaneously.

27-29. (Canceled)

30. (Original) An electronic apparatus, comprising:

the electro-optical device according to Claim 1.